Herbert Wertheim College of Medicine

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Medical Affairs, Dean

Executive Associate Deans
Academic Affairs
Clinical Affairs
Finance and Administration
Student Affairs
Deputy General Counsel

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Cellular Biology & Pharmacology
Dermatology
Human & Molecular Genetics
Humanities, Health, & Society
Immunology
Medicine
Molecular Microbiology & Infectious Diseases
Neurology
Neurosurgery
Obstetrics & Gynecology
Ophthalmology
Orthopedics
Otolaryngology
Pathology
Pediatrics
Psychiatry
Radiology
Surgery
Urology

Directors
Accreditation
Admissions & Records
Assistant Vice President for Medical Admission
Assessment
Community Service Learning & NeighborhoodHELP™
Counseling
Deputy General Counsel

Mission Statement
The mission of the Florida International University Herbert Wertheim College of Medicine is to lead the next generation of medical education and continually improve the quality of healthcare available to the South Florida community. The College of Medicine will accomplish its mission by:

- Training physicians to serve South Florida’s diverse population through a patient-centered curriculum instilling cultural competence,
- Providing Florida students greater access to medical education, and
- Fostering research to discover and advance medically relevant knowledge.

History
Herbert Wertheim College of Medicine at FIU arose from a community need for access to medical education and a regional need to address a shortage of physicians. Establishing the college formally began July 5, 2004, when the university first proposed the concept to the Board of Regents. The decision was postponed; later that year the Board of Regents was dissolved by the Governor to be replaced by the Board of Governors.

The university continued to build its case for a medical school based on the need for better access to medical education and patient care as well as the ability to reduce health disparities in the community. In November 2005, the Board of Governors heard FIU presentations for the creation of a new Florida medical school. The decision was postponed until the March 2006 when the South Florida community was awarded a preliminary accreditation from the Liaison Committee on Medical Education (LCME). The college received preliminary accreditation from the Liaison Committee on Medical Education (LCME). The college accepted its first class of future doctors in the fall of 2009.

MD Program
The College of Medicine offers a program of study for the Doctor of Medicine degree. The program requires 200 credits divided into four successive periods of 32, 37, 48, and 48 weeks. Basic Medical Science, Clinical Science, Clinical Skills, Professionalism and Social Responsibility are the foundations of the curriculum. Service learning in healthcare delivery and in the community are major components of the program. The college has formal affiliations with healthcare providers in the community, providing settings for supervised clinical practice learning. These affiliations include Baptist Health South Florida, Broward Health, Cleveland Clinic Florida, Jackson Health System (Public Health Trust), Leon Medical Centers, Memorial Healthcare, Mercy Hospital, Miami Children’s Hospital, Mount Sinai Medical Center, and several ambulatory healthcare clinics.

The goal of the MD degree program is to prepare graduates for advancement into postgraduate study and
for the practice of medicine in any medical specialty or primary care area. In addition to the 200 credits earned in the curriculum, the Doctor of Medicine program requires demonstrated clinical competency, passing of Step 1 of the United States Medical License Exam, consistent display of professional behaviors and values appropriate for the practice of medicine, and recommendation from the Medical Student Evaluation and Promotion Committee and the Dean of the College of Medicine.

Admission

Florida International University Herbert Wertheim College of Medicine (HWCOM) participates in the American Medical College Application Service (AMCAS) application process (http://aamc.org/audienceamcas.htm). Applications verified by AMCAS are the first step in the HWCOM applicant screening process. Following receipt and verification of the AMCAS application and its data, each applicant is invited to complete the HWCOM Secondary Application provided they meet the minimum Medical College Admission Test (MCAT) and Grade Point Average (GPA) requirements (MCAT 35, overall GPA 3.0 and Science/Math GPA of 3.0 for regular admissions; MCAT 35 and overall GPA 3.7 and Science/Math GPA of 3.5 for Early Decision Program). A $30 non-refundable application fee is required with submission of the HWCOM Secondary Application. The HWCOM Secondary Application provides additional insight into the applicant, focusing on issues such as the candidate’s desire to become a physician, commitment to Florida, and interest in FIU. Applicants are invited for an interview based on academic factors as well as non-academic factors, such as personal experiences in several of the following – clinical/patient care exposure, research, commitment to service, leadership, and other enriching qualities.

After the interview, the completed file is reviewed by the Admissions Committee. The Admissions Committee then votes to determine the admission status of the applicant. HWCOM maintains an active waitlist until the first day of Orientation in the beginning of August.

Medicine & Society: NeighborhoodHELP™

Green Family Foundation NeighborhoodHELP™ is a Health Education Learning Program that assigns teams of Florida International University (FIU) inter-professional students or FIU outreach personnel to willing households with the following goals: 1.) Improve household members’ health and quality of life and 2.) Provide students with an appreciation of the medical aspects of modern biosciences. This program will develop graduate students and medical students sit side-by-side in the introductory basic sciences portion of the medical curriculum, providing the graduate students with an appreciation of the medical aspects of modern biosciences. This program will develop graduate students with an exceptional ability to apply their research skills if needed. Green Family Foundation NeighborhoodHELP™ is part of the vision of the Herbert Wertheim College of Medicine to create a new model of medical education immersed in the local neighborhoods to improve the quality of learning for students while providing service to local communities.

Clinical Services: Health Care Network (HCN)

The FIU-HCN supports the educational and service mission of FIU College of Medicine by managing clinical practice locations where College of Medicine faculty are engaged in the practice of medicine. Florida International University through Herbert Wertheim College of Medicine has created a faculty group practice as a 501(c)(3) corporation that will have multiple practice sites throughout South Florida. The FIU HealthCare Network and its Faculty Practice Plan exists exclusively to support FIU’s mission, and medical education at the Herbert Wertheim College of Medicine. The FIU-HCN provides various administrative functions to support the College of Medicine faculty. These functions include billing and collections, contract management with vendors and insurance companies, provider credentialing, and administration of practice operations. Through the College of Medicine’s strategic recruitment of exemplary physicians, the FIU HealthCare Network will manage practices that render to its patients contemporary and quality medical care in an environment that is conducive to learning for patients, medical students, residents, and peers.

Research: Biomedical and Clinical

Research universities and medical schools in particular perform the basic medical research that leads to breakthroughs in detection, diagnosis, treatment and eradication of disease and other health problems. FIU scientists will continue conducting important disease-related research. One of the objectives of the research program is to foster synergy between teaching and research. FIU medical students will be aware of the latest medical developments and work alongside researchers to develop research skills.

The College of Medicine has the overall goal of growing the research enterprise to advance FIU into the top-tier of research institutions nationwide. The college opened with a modest cadre of outstanding internationally recognized scientists, all with substantial research funding. This cohort is the foundation of a research enterprise that will develop major research programs in reproductive development, reproductive cancer biology, infectious diseases, and environmental health sciences of special relevance to South Florida’s.

Ph.D. Program in Basic Biomedical Sciences

The Ph.D. program in Basic Biomedical Sciences at the Herbert Wertheim College of Medicine (HWCOM) provides a curriculum that is different than other FIU colleges. A distinctive feature of this program is that both graduate students and medical students sit side-by-side in the introductory basic sciences portion of the medical curriculum, providing the graduate students with an appreciation of the medical aspects of modern biosciences. This program will develop graduate students with an exceptional ability to apply their research skills
from bench to bedside, and to translate fundamental discoveries into new treatments for human diseases.

Admission Requirements

The HWCOM Graduate Program adheres to the general admission procedures as outlined by the FIU University Graduate School (UGS). Completed applications will be evaluated by an Admissions Committee designated by a Program Director appointed by the Dean. In addition, applicants must meet the following criteria for admission to the doctoral program:
1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university.
2. A Grade Point Average (GPA) of at least 3.0 (on a four-point scale) during the last 60 credits of an accredited undergraduate degree or an earned graduate degree.
3. A minimum GRE score at the 70th percentile (1150) is expected for favorable consideration. Optional submission of scores from the advanced test in Biology, Chemistry, or Cell and Molecular Biology will strengthen the application.
4. International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (iELTS). A total score of 80 on the internet-based TOEFL or 6.5 overall on the iELTS is required.
5. A minimum of three letters of recommendation should be submitted from undergraduate or research advisors. Strong unequivocal letters attesting to the applicant’s educational background, motivation, analytical skills, and promise as a research scientist are important considerations.
6. The applicant should include curriculum vitae and a statement of purpose and future goals after obtaining the Ph.D.

Degree Requirements

The Ph.D. in Basic Biomedical Sciences requires a minimum of 81 post-baccalaureate credits of which at least 24 hours are dissertation research. Students are required to maintain a cumulative GPA of 3.0 or higher, with no grade of less than "B". If a student receives a "C" in any required course, the student can repeat that course and must improve to "B" or better. Any grade of less than "C" will result in immediate dismissal from the program. Students must demonstrate graduate knowledge acquisition in four incremental stages in order to be awarded a Ph.D. degree:
1. Qualifying Examination. Students will be evaluated on successful passing a Qualifying Examination taken during the second academic year and no later than the end of that year. The exam is designed to test the student's knowledge of biomedical research, as well as assess creativity and rationality of research design. The exam is composed of two parts:
   a. An oral portion with questions based on coursework from the two years and reading assignments in areas selected by participating faculty members.
   b. The written examination will be prepared and graded by selected faculty members.
2. Doctoral Dissertation Proposal. After completion of the Qualifying Examination student must prepare a formal research proposal of the Ph.D. studies in the style of an NIH R01 investigator initiated project.
3. Dissertation Proposal. Seminar based on student proposal will be presented and graded by the Dissertation Committee. The formal admission to Ph.D. candidacy occurs when the student successfully completes required courses and passes the Qualifying Exam, prepares a formal dissertation proposal, and successfully defends the content of the proposal before his/her advisory committee. Immediately following the proposal defense, the student's dissertation committee will vote to admit the student to candidacy, to have the student resubmit the proposal within six months, or to dismiss the student from the Ph.D. program. A student can only resubmit his/her proposal once. The dissertation committee should be comprised of at least five members, at least three of whom should be HWCOM graduate program faculty and at least one member who is not a member of the HWCOM faculty and who holds a Graduate Faculty appointment.
4. Dissertation and Dissertation Defense. The Dissertation Advisory Committee (DAC) will approve the major goals of the research project, monitor progress of student performance and approve a target date for the dissertation defense. A prerequisite for the dissertation defense is publication or submission of peer-reviewed papers. It is expected that the student will be first or senior author on at least one of the peer-reviewed publications. The format of the dissertation should follow UGS guidelines. The dissertation defense will take place after the dissertation is submitted in a final form and approved by the DAC. Changes recommended at the time of the defense may be incorporated subsequently. The dissertation should be submitted to the DAC at least four weeks prior to the expected defense date to permit the members adequate opportunity for review. Review of the dissertation by an outside reviewer is encouraged. The defense of the dissertation is governed by the regulations established by the UGS. The dissertation defense includes a public seminar followed by defense of the dissertation to the DAC in closed session. Following the examination, the DAC evaluates the performance in the candidate’s absence and votes to pass or fail the candidate. The record of the vote is recorded on FIU University Graduate School Form Defense of Dissertation Results and submitted to the University Graduate School Office.

Coursework Requirements

Mandatory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BMS 6001</td>
<td>Genes, Molecules and Cells</td>
<td>7</td>
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<tr>
<td>BMS 6002</td>
<td>Human Structure and Function</td>
<td>7</td>
</tr>
<tr>
<td>BMS 6300</td>
<td>Microbiology, Infection and Immunology</td>
<td>3</td>
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<tr>
<td>BMS 6880</td>
<td>Epidemiology and Biostatistics</td>
<td>1</td>
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Additional Required Courses

a. Laboratory Research rotations. Newly matriculating students will perform research rotations in a minimum of three different faculty laboratories for 4-6 weeks each. Students will choose faculty laboratories with the consent of those faculty members. The purpose of the rotations is three-fold. First, each rotation
period provides the student with an opportunity to evaluate the faculty member and laboratory. Second, the rotation provides the faculty member with an opportunity to evaluate the student. Third, rotations in diverse laboratories expose the student to a variety of methodologies and concepts. The rotation experience will be an approved course (GMS 6942) with credit, and students will receive a pass or fail grade based on an average of the evaluations of the three participating faculty members. Before beginning a rotation, students should discuss with the faculty member the expectations of the rotation and evaluation procedures. In the event that the student cannot make a decision on a major advisor after three rotations, or if a faculty member will not agree to be the student’s supervisor, a fourth rotation will be allowed.

b. Supervised Teaching. Graduate students are required to register for one credit of GMS 6940 (Supervised teaching) each semester they serve as teaching assistants.

c. Graduate Seminar. Graduate students are required to register for one credit of GMS 6939 (Graduate Seminar).

d. Research Credits. At least 10 credits of GMS 6979 involving research conducted in the PhD advisor’s laboratory.

e. Dissertation Research Credits. At least 24 credits of GMS 7980 (Dissertation Research) are to be taken after the student has advanced to candidacy.

Elective Courses (5 credits)

Potential Electives from HWCOM

BMS 6400 Pharmacology 4
BMS 6600 Cellular & General Pathology 4

Potential Electives from College of Arts and Sciences – Chemistry and Biochemistry

CHM 5305 Graduate Biological Chemistry 3
CHM 6382 Advanced Biological Chemistry 3

Potential Elective from College of Engineering & Computing – Biomedical Engineering

BME 6545 Biosensors & Nanobiomedicine 3

Potential Elective from College of Engineering & Computing – Computer Science

CGS 5166 Introduction to Bioinformatics Tools 2

Course Descriptions

Definition of Prefixes

BCC-Basic Clinical Clerkships; BMS-Basic Medical Sciences; GMS-Graduate Medical Sciences; MEL-Medical Science Electives

Courses in the College of Medicine numbered BMSxxxx and BCCxxxx are restricted to students enrolled in the College of Medicine.

BCC 7110 Internal Medicine Clerkship (12). Students will have an integrated rotation of 24 weeks in the Internal Medicine, Surgery, and Emergency Medicine. This rotation will start building the clinical skills, knowledge, and professional behavior necessary to evaluate and care for adult patients with careful supervision from faculty physicians. The clerkship will emphasize basic assessment and management of core common problems in Internal Medicine, including identifying patient problems, establishing a differential diagnosis and planning an appropriate evaluation. This will prepare students for management and therapeutics in Period 4. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7120 Neurology Clerkship (6). This clerkship will provide medical students with experience in general and specialty neurology. Students will learn to diagnose and treat neurological emergencies. They will follow patients from the emergency department to the catheterization lab, surgical suite, and/or intensive care unit. Care will continue in the inpatient neurosurgery unit, and on to the rehabilitation unit. Students will also develop competencies in diagnosing and treating non-emergent neurological disorders in the outpatient setting. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7130 Obstetrics and Gynecology Clerkship (6). The course introduces the third year medical students to a 6-week obstetrics and gynecology rotation in the core discipline of women’s health. The obstetrician and gynecologist are involved in every facet of women’s health care maintenance and delivery throughout her lifespan, from prepubertal and early menarche, primary care providers for healthy women, the joy of normal pregnancy and delivery, to the crisis of infertility, pregnancy loss and cancer. So a general understanding of the field is important in the development of a well round primary care physician. The students will be exposed to all aspects of the specialty including ambulatory clinics, hospital inpatient wards, the operative theatre, emergency room visits and consults, radiology and the labor and delivery suite. Throughout the rotation faculty and nurse midwives will be your instructors as to the various fundamentals in women’s health but there is no doubt that the most profound learning comes from self-motivation and patient centered learning. Our goal in the rotation is to guide and motivate learning, not just in the disease process, but also providing the tools that are instrumental in the continuously evolving practice of medicine such as patient based population needs, medical economics, treatment modalities, and legislative concerns. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7140 Pediatrics Clerkship (6). The Pediatrics Clerkship will provide student with an experience in the evaluation, diagnosis, and management of pediatric patients. Through inpatient and outpatient clinical experiences students will be exposed to a wide variety of pediatric patients presenting with acute illnesses, chronic illness, and health maintenance visits. Students will actively participate in clinical cases, simulated cases, simulation laboratory scenarios, and didactic lectures. The clerkship emphasizes basic assessment and management of core common pediatric problems. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7150 Psychiatry Clerkship (6). The course introduces medical students to general and specialty psychiatry and will allow students to develop competencies in diagnosing and treating psychiatric disorders. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7160 Surgery Clerkship (12). This clerkship will provide students with an experience in the medical management of surgical patients and in basic surgical
techniques. Students will participate in peri-operative care and operative procedures. The clerkship will provide didactic experiences on management of surgical diseases. Students will also evaluate surgical inpatients and outpatients. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7170 Family Medicine Geriatric Clerkship (2). The 2013 class will be divided in 2 groups. Each group will be going to Leon Medical Centers approximately twice a month on Mondays from September 2010 to February 2011. Students will be assigned a rotation schedule and are expected to attend a meeting at the Leon Medical Centers to meet his/her preceptor prior to the start of the rotation and to confirm the location, date, and other issues specific to the site. At each Center, students will have the opportunity to attend outpatient clinic, wound care, walk-in clinic, physical therapy, and dermatology clinic. During the rotation, students will also attend Geriatric Core lecture series and discussion of clinical cases at the COM. Students are also required to present a brief discussion of a relevant clinical topic during their Geriatric clerkship. This presentation will be delivered to the faculty and other medical students during the geriatric clerkship. The Second Period Geriatric Clerkship will provide students with an experience in the evaluation, diagnosis, and management of geriatric patients in the outpatient setting. Throughout patient clinical experiences, students will be exposed to a wide variety of geriatric patients presenting with acute illnesses, chronic illnesses, evaluation of disabilities and preventive health maintenance visits. Students will participate in clinical evaluations, simulated cases, simulated laboratory scenarios, and didactic lectures. The clerkship emphasizes comprehensive assessment and management of core common geriatric conditions. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BCC 7175 Family Medicine Clerkship (3). Family Medicine is the specialty that focuses on care for the whole person regardless of age, gender, or disease, set within their social and community context. The Period 3 Family Medicine Clerkship is a practical opportunity for students to demonstrate progressive skill development integrating their knowledge of basic and social sciences, clinical skills, professional development, and social accountability. This course is an extension of the Period 2 Family Medicine Clerkship incorporating the Family Medicine Geriatrics Rotation at the Leon Centers and Green Family Foundation NeighborhoodHELP™ (GFFNHELP). Under the supervision of FIU Family Medicine faculty, students will conduct and document history, physical exam, assessment, management and plan and provide patient education. The course is aimed at preparing students for Period 4 rotations and their future careers as physicians. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BMS 6001 Genes, Molecules & Cells (7). This course covers fundamental principles of cell and molecular biology and human genetics and their role in clinical medicine as they relate to health and disease. Prerequisite: currently enrolled in the College of Medicine.

BMS 6002 Human Structure & Function (7). This is an introduction to essential concepts of human structure and function with integration of the anatomical and physiological basis of several important clinical skills and procedures. Prerequisite: currently enrolled in the College of Medicine.

BMS 6015 Clinical Skills I (4). This course focuses on teaching medical students the knowledge, skills and attitudes needed in areas such as communication, the physical examination and documentation. Prerequisite: currently enrolled in the College of Medicine.

BMS 6016 Clinical Skills II (6). Clinical Medicine is a longitudinal “strand” throughout the four-year medical school curriculum. The strand is designed to provide students with the foundations of patient care that will prepare them for their clinical clerkship years. It will also provide them with the tools that will foster a lifetime of clinical competence. Prerequisite: Enrolled in College of Medicine.

BMS 6063 Foundations of Health Care (1). This course will provide the student with a population-based approach to understanding the delivery systems of healthcare. It will provide an understanding of economic, social and environmental forces facing our health care delivery systems today. Prerequisite: Enrolled in the College of Medicine.

BMS 6064 Health Care Policies and End of Life Care (1). Introduction to Health Care Policies: This course will bring students the awareness they need of all interested parties and how each one of them shapes healthcare policy which in turn will affect all involved in health care. Among other things, this course invites you to examine Florida and U.S. Health Care Policies to determine which major health care issues physicians confront today. End of Life Care: This course teaches the basic concepts associated with end-of-life care for older adults. Emphasis is placed on symptom management, preparation for death, and support to older adults and their families. The goal is to develop knowledge of specific strategies to support end-of-life care planning among older patients, families and healthcare professionals. Prerequisite: Enrolled in the College of Medicine.

BMS 6065 Quality Improvement and Medical Jurisprudence II (1). Quality Improvement in Health Care: Improving the quality of health care in the US is a public health emergency. This course is designed to convey a sense of urgency and instill a commitment to lifelong quality improvement. A broad quality platform will be presented from the viewpoint of relevant stakeholders. Learners will be armed with critical tools to meet QI responsibilities throughout clinical practice. Medical Jurisprudence II: This course incorporates the basics of two professions, Medicine and Law. Physicians meet the law face to face every day, which is why students must be clear as to what purpose the law serves and how it affects medical practice. What are the patient’s rights, what are your legal obligations? This course will provide students with a framework for understanding the U.S. legal system’s structure and the application of law to the practice of medicine. Prerequisite: Enrolled in the College of Medicine.

BMS 6066 Evidence-Based Medicine (1). This course is intended for students to acquire and develop both the knowledge and the skills for evidence-based medicine
(EBM). The emphasis of the course is on the second, third and four steps of EBM: searching clinical evidence, appraising critically the validity and importance of clinical research evidence, and determining the applicability of evidence into practice. This course content complements the previous activities addressing EBM (BMS 6880) where the students learned how to develop answerable clinical (PICO) questions from patients’ problems. In addition, during this course students will use concepts obtained in previous epidemiology courses as they are applied to help solving clinical problems. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BMS 6071 Team-Based Community (5). This course provides a practical opportunity for the basic assessment and management of common medical, psychosocial, and environmental problems in medically underserved neighborhoods. Each team of students (medical, nursing, and social work students) will be assigned one or more households. Students will work with assigned households to develop and implement a comprehensive plan to improve health. Students will present their assessments and plans to the students and faculty of their neighborhood. Family medicine faculty will supervise the student teams along with faculty from social work and nursing. The online fmCASES provide students the opportunity for guided independent study of primary care principles and management of common clinical conditions. This course also provides the opportunity for self-directed work toward the Medicine & Society Capstone. Prerequisite: Enrolled in the College of Medicine.

BMS 6300 Microbiology, Infection & Immunology (3). This course introduces and integrates general principles and examples of microbiology and immunology to provide a foundation for understanding infections, host responses, disease mechanisms and means for prevention and treatment. Prerequisite: currently enrolled in the College of Medicine.

BMS 6400 Pharmacology (4). This course introduces medical students to the basic principles of pharmacology and to the primary classes of drugs including the prototypic agents. Prerequisite: currently enrolled in the College of Medicine.

BMS 6600 Cellular & General Pathology (4). Cellular and General Pathology is designed for first year medical students as an introductory course in the study of disease emphasizing the general pathologic concepts and vocabulary as well as the fundamental concepts related to laboratory medicine. Prerequisite: currently enrolled in the College of Medicine.

BMS 6631 Hematopoietic and Lymphoreticular Systems (3). This course is designed to provide the fundamental ground knowledge as it relates to the understanding of hematologic diseases, the clinical approach to a patient with a hematologic disease and the initial approach to the use of various chemotherapeutic drugs. Discussions related to: the mechanisms of disease with an understanding of the molecular bases that explain the disease process; the clinical features of the different disorders - genetic or acquired - as well as a description of the morphologic features of these diseases based on the most current available and clinically applicable information will undertaken. Prerequisite: Enrolled in the College of Medicine.

BMS 6632 Endocrine System (3). The Endocrine System course will: (1) Building upon the specific topics discussed in the course Human Structure & Function, introduce medical students to the abnormal processes and principal therapies of endocrine disorders; (2) Advance their knowledge and comprehension of the aforementioned disorders and therapeutic modalities including the influence and effects of gender, ethnicity, and behavior of patients on specific endocrine diseases. To provide an interactive teaching and learning environment, the course will include ‘question & answer’ sessions interspersed during the lectures as well as case discussions. A solid understanding of normal endocrine processes including the anatomy and function of endocrine organs, hormone synthesis, secretion, action and metabolism are required to successfully master this course. Prerequisite: Enrolled in the College of Medicine.

BMS 6633 Cardiovascular and Respiratory Systems (6). The course is an introductory learning opportunity to gain the basic concepts of cardiac and pulmonary medicine. The course will review the cardiopulmonary structures and anatomic and physiologic relationships and their integration to clinical medicine. The course will cover abnormal cardiovascular and pulmonary structures and physiology and the associated mechanisms of the related diseases. The clinical manifestations of derangements of the cardiopulmonary system will be reviewed. The student will be introduced to the diagnostic and therapeutic interventions in cardiopulmonary disease. Case based approach, group discussions, simulations and didactic presentations with some exposure to clinical skill will be used to achieve course objectives. Prerequisite: Enrolled in the College of Medicine.

BMS 6634 Gastrointestinal System and Nutrition (4). This course is designed to introduce second year medical students to the principles of diseases affecting the human body’s digestive system. The course will cover conditions affecting the hollow viscera (esophagus, stomach, small intestine and colon) as well as solid organs that are part of the digestive system (liver and pancreas). Clinical cases will be used to introduce students to critical medical thinking and problem-based learning. Integration of anatomy, physiology, immunology and histology will be emphasized. Prerequisite: Enrolled in the College of Medicine.

BMS 6635 Musculoskeletal Systems and Skin (5). This course is intended to familiarize the medical student with the normal development, structure and function of the musculoskeletal and integumentary systems. Common pathologic conditions that are congenital and acquired will be presented. The affects of environment, nutrition, exercise and aging on bone and joint homeostasis is emphasized. The opportunity to develop and enhance history taking and physical examination skills is provided. Basic prescribing and interpretation of diagnostic tests and correlation with pathoanatomy will be presented. Practical clinical skills such as joint and soft tissue infiltrations as well as reduction and stabilization of common fractures and dislocations will be taught. Prerequisite: Enrolled in the College of Medicine.

BMS 6636 Nervous Systems: Brain and Behavior (1-12). The Nervous System Brain and Behavior course is designed to build upon vocabulary and concepts learned in Period One. The course will expand upon essential
concepts in human structure and function leading to the introduction of growth and development of the human nervous system including embryological, cognitive and emotional aspects, clinical psychiatry, and clinical neurology. The course will integrate the concepts introduced in structure and function with their clinical application. Didactic lectures, small groups and independent study will be utilized as learning opportunities. Virtual patients and computer based simulations will be used as appropriate. Prerequisite: Enrolled in the College of Medicine.

BMS 6637 Reproductive Systems (3). Reproductive Systems provides an overview of the development of the male and female reproductive systems with a focus on abnormalities of sexual differentiation and function, the physiology of control of the menstrual cycle, conception, infertility, menopause and pregnancy. In addition, the pathophysiology of the male reproductive system will be covered. Prerequisite: Enrolled in the College of Medicine.

BMS 6638 Renal Systems (1-12). This course is an introduction to the study of the Renal System. It will help the student integrate what they have learned in previous courses (e.g. Anatomy, Physiology, Biochemistry, Genetics, Epidemiology, Histology, and Pharmacology), lead to an understanding of the mechanisms of diseases involving the kidneys. Prerequisite: Enrolled in the College of Medicine.

BMS 6820 Complementary and Alternative Medicine (CAM), Humanism, and Medical Jurisprudence I (1). The course is designed to challenge the student to understand the global (east vs. west) interpretation of compassion, empathy and awareness as well as understanding the self. It will provide a broad sense of one's own awareness of the self as brought forth by ones social, religious, economic, family and education experiences. Prerequisite: Enrolled in the College of Medicine.

BMS 6826 Ethical Foundations of Medicine (1). This course will give students a foundation in bioethics and the ethics of medical practice, and will begin preparing them to make daily ethical decisions and respond to the ethical issues, challenges and dilemmas they will encounter as students and physicians. The course will provide historical background on the social and moral foundations of modern medicine, as well as consider some cultural influences. Students will review the major medical oaths and codes; analyze the ethical basis of decision-making; and work through case studies that exemplify ethics in practice. They will also conduct a community visit and begin discussing the social and cultural factors in patient-doctor interaction in the context of medical ethics. Prerequisite: Currently enrolled in the College of Medicine.

BMS 6827 Addressing the Socio-economic and Cultural Aspects of Health (1). This course will introduce medical students to the socio-economic and cultural aspects of health through clinical cases. Students will be provided with the tools and skills to address these issues. We will review the basics of cultural competency as a vehicle to improve care to diverse populations. Students will identify ethical concerns and consider broader policies in preparation for an ethical and socially responsive approach to medicine. Prerequisite: Currently enrolled in the College of Medicine.

BMS 6828 Interprofessional Approaches to Health (1). This course will provide medical students with the basis of the professional cultures they will come into contact with in their health care practice (including nursing, social work, law, public health, and health sciences). Students start developing collaborative skills to work effectively in teams to address barriers to effective care and maximize outcomes through case-based problem solving. The course will lay the groundwork for interprofessional collaboration during the NeighborhoodHELP visits and a future of interprofessional practice. The course will be taught in parallel with nursing, with the elective participation of Social Work students. Students will be expected to start identifying both micro (personal) and macro (policy) issues that influence health care delivery and health outcomes. Prerequisite: Currently enrolled in the College of Medicine.

BMS 6880 Foundations of Clinical Epidemiology and Quantitative Research (1). This course is an introduction to the study of measurement and quantitative methods and of the elements and foundations of epidemiology and research. The main perspective is the use of those methods at clinical settings or to address clinical problems (Clinical Epidemiology) in the practice and research of medicine. Concepts from the sciences of Biostatistics and Clinical Epidemiology will be presented to the student in theory and problem-based scenarios. The course will help prepare the students to understand how clinical processes and information is measured and translated into data for the purpose of research and evaluation; how summary information is produced; how bias, chance, and conditional thinking are translated into research information; and how the above concepts constitute the backbone of a scholarly analysis of medical and public health literature and good clinical practices. It also provides the needed concepts to understand research in essential topics for clinical practice such as risk estimation, diagnosis, prognosis, and treatment. It will deal in more depth with generalization of information, non-generalizable information, as well as notions required to understand the link of clinical epidemiology and research to EBM and population-based medicine. Prerequisite: Currently enrolled in the College of Medicine.

BMS 6892 Professional Behavior II (1). This course is a continuation of the Period One Professional Behaviors experience. Where the focus of the course during Period One was on "self-awareness," Period Two goes more into depth in the development of self-awareness and the development of the emerging "MD identity." Class sessions are structured using the same approach with the
introduction, history, development and implications of the Values, Emotions and Attitudes (VEA) on medical practice. However, the vignettes are more evidence-based and discussions include reflections of the student's clinical experiences as they relate to the VEA. Additionally, the VEAs presented in the class session are more comprehensive and identify greater implications for the MD. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BMS 7810 Core Concepts in Medicine (7). Weekly six hour interactive didactic activity, reviewing in a multidisciplinary format core topics across the different disciplines. Emphasis is placed on fostering competence in critical thinking skills, basic science and clinical knowledge, patient care, practice based learning, communication skills, professionalism, system-based practice and social accountably. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

BMS 8910 Directed Study (1-3). Medical students engaged in individual research under the supervision of the COM faculty. Prerequisite: Enrolled in the College of Medicine.

GMS 6904 Introduction to Scientific Writing (3). The introductory course designed to teach the students to design, write, and present scientific papers and grant applications. Prerequisite: HWCOM Graduate School Enrollment.

GMS 6939 Graduate Seminar (1). A weekly seminar/discussion course consisting of research presentations by students, faculty, and visiting scientists in the area of biomedical sciences will form part of a recurring credit. Prerequisite: HWCOM Graduate School Enrollment.

GMS 6940 Supervised Teaching in Biomedical Science (1). Students will assist the faculty members who teach either graduate or medical students. Prerequisite: HWCOM Graduate School Enrollment.

GMS 6942 Laboratory Rotations (1). Laboratory rotations in specific laboratories of the HWCOM graduate program faculty that will eventually lead to the choice of a thesis laboratory. Prerequisite: HWCOM Graduate School Enrollment.

GMS 6961 Qualifying Examination (5). After completion of the mandatory courses, students will be evaluated by completion of the Qualifying Examination (QE). Students will be evaluated on the successfully passing a Qualifying Examination taken during the second academic year and no later than the end of that year. The Qualifying Examination determines, in part, the student's eligibility for admission to candidacy for the Ph.D. degree. The examination is designed to test the student's basic knowledge of biomedical sciences, as well as assess creativity and rationality of research design. Prerequisite: HWCOM Graduate School Enrollment. Corequisites: Completion of all mandatory courses. At least overall 70% score in all mandatory courses.

GMS 6962 Formation of Committee: Appointment of Dissertation Committee: Preliminary Proposal (1). The student submits preliminary research proposal approved by his/her committee. Prerequisite: HWCOM Graduate School Enrollment.


GMS 6964 Dissertation Proposal Seminar (1). After completion of the Qualifying Examination (QE) and Dissertation proposal approval the student must present his proposal to the Dissertation Committee. The student will give a PowerPoint presentation the proposed research to the members of the dissertation committee. The dissertation committee will specifically evaluate the following: (i) Has the student demonstrated the ability to design a feasible project? (ii) Has the student shown a reasonable knowledge of the literature regarding the project? (iii) Has the student presented the proposal (both written and oral) in a scholarly fashion? (iv) Has the student demonstrated competent scientific knowledge with respect to overall fundamental principles and applications in biomedical science? and (v) Does the proposed research constitute an acceptable and feasible dissertation project? This will be achieved through an oral question and answer component within the scheduled time of the dissertation proposal exam meeting. The chairman of the dissertation committee will (i) insure that the proposal exam is held to a reasonable length of time; (ii) insure that the student is evaluated fairly and rigorously; and (iii) see that a written evaluation is promptly prepared and sent to the student and to the director of the graduate program. Prerequisite: HWCOM Graduate School Enrollment. Corequisites: Completion of GMS 6961, GMS 6963, and permission of the advisor.

GMS 6979 Research Credits (5). Research conducted in the Ph.D. advisor laboratory. Prerequisite: HWCOM Graduate School Enrollment.

GMS 7980 Dissertation Research Credits (6). Research conducted towards the Ph.D. dissertation. Prerequisite: HWCOM Graduate School Enrollment. Corequisites: Completion of qualifying exams and GMS 7981.

GMS 7981 Dissertation Defense Seminar (1). Dissertation defense seminar. Prerequisite: HWCOM Graduate School Enrollment. Corequisites: Permission of major professor and graduate committee.

MEL 7100 Directed Clinical Study (0). Students will follow (shadow) a physician at varied institutions to observe daily activities. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7115 Geriatric Medicine Elective (1-12). Medical students in Geriatric Medicine to include exposure to inpatient services on older person admitted to Sunrise Health and Rehabilitation Center, a skilled nursing facility also in Sunrise and outpatient geriatric assessment at the Cleveland Clinic Florida outpatient department. The curriculum incorporates recommendations made by the American Geriatrics Society, the American College of Physicians, and the Society of General Internal Medicine. The rotation focuses on comprehensive care of the frail and older persons with chronic problems and with acute exacerbations of those problems and usually affecting their functional status. There are also permanent residents of the nursing home that will need health maintenance and evaluation during their rotation. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.
MEL 7117 Infectious Disease Selective (1-12). This 4 week selective rotation is intended to prepare students to obtain under direct supervision of an infectious disease faculty the necessary diagnostic and therapeutic skills to effectively care for in patients with infectious disorders from the surgical, transplant, intensive care, OB/GYN, hematologic/oncologic and general medicine services, in a Community Hospital (Baptist Health System). Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7170 Medical Ethics and Humanism Elective (1-12). This elective is designed for individualized study and practice in further pursuit of topics relevant to the humanistic missions of both the Professional Development and Medicine & Society Strands. Students will design an independent study or practicum experience under the mentorship of Medicine & Society or Professional Development faculty. This elective will be offered in all months with maximum of 8 students per year. Humanism in medicine is the recognition that both practitioner and patient are human beings. Rather than viewing patients as carriers of diseases or maladies and oneself as a diagnostic machine and distributor of pills, a humanistic practitioner focuses on the shared values of humanity and the shared experiences of being human. This focus provides a framework for improved clinical interactions. There are a number of ways one can be a humanistic practitioner. In this elective we will explore and encourage competence in the one or more of the following areas: bioethics, medical professionalism, shared decision making, narrative medicine, spirituality and medicine, ethics and law (related to medical practice), and the arts and medicine, including the literary arts. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7240 Family Medicine Elective (1-12). Medical Students assigned to the outpatient department are supervised by one or two of 11 board-certified internists. The rotation is particularly appropriate to those considering a career in primary care medicine. Students follow the patients of their assigned physicians, observing and performing history-taking and physical examination. Together with their attending physicians, students formulate diagnostic and therapeutic plans. Physical examination procedures and outpatient management techniques are emphasized. Students are expected to attend all departmental rounds and activities and are assigned selected readings from textbooks and journals. Medical students interested in inpatient internal medicine are assigned to the Internal Medicine Clinical Teaching Unit where they follow inpatient internal medicine patients and become involved with the hospital consultation service. The rotation is particularly appropriate for students interested in a career in general internal medicine. Students perform medical histories and physical examinations under the supervision of the attending physician and formulate diagnostic and therapeutic plans. They are expected to participate in all hospital-related rounds and activities, and follow selected readings. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7280 Community Medicine (1-12). This intensive ambulatory block will serve as a community based primary care experience. Students will be assigned a community based public clinic. Under the supervision of community based FIU faculty, the student will assume a level of independence appropriate to a fourth year student. Students will practice communication, diagnosis skills, clinical reasoning, management of common ambulatory clinical scenarios, and patient education and negotiation, and receive feedback. The class will be a one month block at a single site, or split in two rotations blocks of two weeks each. Experiences may include any of the specialties (e.g. family medicine, internal medicine, pediatrics, obstetrics and gynecology, psychiatry, psychology) found at these clinics. Two weeks rotations are possible in areas like Palliative Care, Hospice, Community Mental Health, Sports Medicine, Rural Medicine, Indian Health Service Medicine, International Medicine, and Complementary and Alternative Medicine. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7281 Community Medicine Elective (1-12). This intensive ambulatory block will serve as a community based primary care experience. Students will be assigned a community based public clinic. Under the supervision of community based FIU faculty, the student will assume a level of independence appropriate to a fourth year student. Students will practice communication, diagnosis skills, clinical reasoning, management of common ambulatory clinical scenarios, and patient education and negotiation, and receive feedback. The class will be a one month block at a single site, or split in two rotations blocks of two weeks each. Experiences may include any of the specialties (e.g. family medicine, internal medicine, pediatrics, obstetrics and gynecology, psychiatry, psychology) found at these clinics. Two weeks rotations are possible in areas like Palliative Care, Hospice, Community Mental Health, Sports Medicine, Rural Medicine, Indian Health Service Medicine, International Medicine, and Complementary and Alternative Medicine. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7301 Internal Medicine Subinternship (1-12). This rotation is intended to prepare students to effectively care for medical conditions commonly encountered during inpatient rotations including ward emergency scenarios. This rotation will provide necessary skills to be successful during their first year of post-graduate education. The sub-intern will fulfill clinical and academic responsibilities as an integral team member of an inpatient medical service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7302 Acute Coronary Care (CCU/CICU) Subinternship (1-12). This rotation is intended to prepare students to obtain necessary diagnostic and therapeutic skills to effectively care for patients diagnosed with critical cardiac disorders. Students will become an integral part of the CICU team consisting of cardiology attending, fellows, internal medicine residents and interns. Students will assist in the admission, evaluation, and management of patients admitted to the CICU. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7305 Endocrinology Elective (1-12). Students will see patients in the adult out-patient setting as well as inpatient consultation service. Patient seen in consultation will be followed until the consultation is signed off. There will be topic presentations during the week and case
discussions. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7306 Gastroenterology/Hepatology Elective (1-12). This course will consist of a four week rotation which will include inpatient and outpatient gastroenterology and hepatology. Throughout the rotation students will be assuming primary responsibility of patients under the supervision of gastroenterology attendings. The experience will also allow for participation in varied endoscopic procedures such as esophageal manometry, upper and lower endoscopy. During the each week students will participate in pathology and radiology conferences geared to gastroenterology and hepatology cases. The course will concentrate in teaching students how to interpret clinical information and develop therapeutic decision making. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7307 Gastroenterology/Hepatology Selective (1-12). This course will consist of a four week rotation which will include inpatient and outpatient gastroenterology and hepatology. Throughout the rotation students will be assuming primary responsibility of patients under the supervision of gastroenterology attendings. The experience will also allow for participation in varied endoscopic procedures such as esophageal manometry, upper and lower endoscopy. During the each week students will participate in pathology and radiology conferences geared to gastroenterology and hepatology cases. The course will concentrate in teaching students how to interpret clinical information and develop therapeutic decision making. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7309 Hematology Oncology Selective (1-12). This rotation is intended to prepare students to learn a basic approach to evaluation, diagnosis, staging and treatment of patients with blood diseases and cancer, students will improve physical diagnosis skills focused on recognition of disorders, recognition of complications of disease and therapeutic issues. Students will learn concepts of palliative care, end of life and hospice care. The rotation is mainly in patient-consult service with some outpatient exposure. Consults come from medical and surgical services. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7313 Nephrology Elective (1-12). This may be offered as a 2 week or 4 week elective. It offers students the opportunity to learn about the diseases of the kidney and become more skilled in their management. Students will participate in the care of patients with medical renal disease that are seen in the office and also on the renal consult service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7316 Nephrology Selective (1-12). This may be offered as a four week selective. It offers students the opportunity to learn about the diseases of the kidney and become more skilled in their management. Students will participate in the care of patients with medical renal disease that are seen in the office and also on the renal consult service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7328 Pain Management Elective (1-12). Students will rotate in an ambulatory setting at a pain management practice under the direct supervision of the attending. This rotation will provide them with exposure to the evaluation and management of acute and chronic pain including: Upper and lower back pain; Chronic arthritis; Disk disease; Radicular and; neuropathic pain syndromes; Pain associated with malignancy. Students will get an understanding of common procedures used in pain management: Local anesthesia; Joint injections; Epidural injections; Peripheral nerve block; Trigger point injections. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7333 Geriatric Medicine Selective (1-12). Medical students in Geriatric Medicine to include exposure to inpatient services on older person admitted to Sunrise Health and Rehabilitation Center, a skilled nursing facility also in Sunrise and outpatient geriatric assessment at the Cleveland Clinic Florida outpatient department. The curriculum incorporates recommendations made by the American Geriatrics Society, the American College of Physicians, and the Society of General Internal Medicine. The rotation focuses on comprehensive care of the frail and older persons with chronic problems and with acute exacerbations of those problems and usually affecting their functional status. There are also permanent residents of the nursing home that will need health maintenance and evaluation during their rotation. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7339 Rheumatology Elective (1-12). This four week rotation will include office and hospital consultation is offered at the private practice of doctors that is affiliated with the Baptist Health System, and Cleveland Clinic Florida. The objective is to improve the understanding of the pathophysiology, clinical presentation, differential diagnosis and treatment of common rheumatologic disorders including the evaluation of soft tissue rheumatism, acute and chronic arthritis, autoimmune connective tissue disorders, and indications for technique of arthrocentesis and tendon injections. Students will also learn the interpretation of the most common laboratory tests used in rheumatic conditions. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7348 Cardiology Elective (1-12). This hospital rotation is offered at MSMC, Baptist Health System, and Cleveland Clinic Florida. The objective is to improve the understanding of the pathophysiolog of common cardiovascular diseases, the evaluation of acute and chronic cardiac disorders, appropriate history and physical exam, indications for invasive and non-invasive studies, EKG interpretation, differential diagnosis and first line treatment of prevalent cardiovascular disorders. Emphasis will be placed on prevention. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7349 Cardiology Selective (1-12). This 4 week hospital rotation is offered at MSMC, Baptist Health System and the Cleveland Clinic. The objective is to improve the understanding of the pathophysiology of common cardiovascular diseases, the evaluation of acute and chronic cardiac disorders, appropriate history and physical exam, indications for invasive and non-invasive studies, EKG interpretation, differential diagnosis and first line treatment of prevalent cardiovascular disorders. Emphasis will be placed on prevention. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.
MEL 7354 Pulmonology Selective (1-12). This rotation is intended to prepare students to obtain necessary patient care skills to effectively care for common cardiopulmonary disorders, in a consultation service with some office experience. Rotation is offered at CCF, MSMC and Baptist Health System. Depending on the site, students will be part of a team with fellows and residents or will be under the direct supervision of a pulmonary specialist. Objectives include skills in radiological interpretation, and pulmonary function tests interpretation. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7379 Advanced Internal Medicine (1-12). The Advanced Internal Medicine rotation is designed to allow fourth year students the opportunity to participate with increased responsibility in the care of patients admitted to the internal medicine/hospitalist service and work closely with the IM-Hospitalist physicians at the respective site. This rotation has a length of 4 weeks and there will be call every fourth night. Students will provide longitudinal care for IM patients assigned to them at the time of consultation from emergency room to patient's discharge and/or transfer. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7380 Hospitalist Service Elective (1-12). The Hospitalist rotation is designed to allow fourth year students the opportunity to participate with increased responsibility in the care of patients admitted to the internal medicine/hospitalist service and work closely with the IM-Hospitalist physicians at the respective site. This rotation has a length of 4 weeks and there will be call every fourth night. Students will provide longitudinal care for IM patients assigned to them at the time of consultation from emergency room to patient's discharge and/or transfer. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7382 Hospitalist Service Selective (1-12). The Hospitalist rotation is designed to allow fourth year students the opportunity to participate with increased responsibility in the care of patients admitted to the internal medicine/hospitalist service and work closely with the IM-Hospitalist physicians at the respective site. This rotation has a length of 4 weeks and there will be call every fourth night. Students will provide longitudinal care for IM patients assigned to them at the time of consultation from emergency room to patient's discharge and/or transfer. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7383 Intensive Care Unit Elective (1-12). This rotation is intended to prepare students to obtain necessary diagnostic and therapeutic skills to effectively care for patients diagnosed with critical medical disorders. The student will work under direct the supervision of the ICU attending in the case of the Baptist Health System or as a member of a teaching team under the supervision of the attending, pulmonary/critical care fellow and IM residents. Students will assist in the admission, evaluation, and management of patients admitted to the Medical Intensive Care Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7384 Intensive Care Unit Selective (1-12). This rotation is intended to prepare students to obtain necessary diagnostic and therapeutic skills to effectively care for patients diagnosed with critical medical disorders. The student will work under direct the supervision of the ICU attending in the case of the Baptist Health System or as a member of a teaching team under the supervision of the attending, pulmonary/critical care fellow and IM residents. Students will assist in the admission, evaluation, and management of patients admitted to the Medical Intensive Care Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7403 Gynecology Surgery Selective (1-12). This four week course will introduce the student to gynecologic care in the adult female, ranging from routine care to the evaluation and surgical treatment of complex gynecologic conditions. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7405 Gynecology Oncology Selective (1-12). This four week selective is intended for students who have already completed the basic core clerkship in OB/GYN and are interested in enhancing their exposure to the subspecialty of Gynecologic Oncology. The student will be provided experience in the inpatient and outpatient management of patients with pre-malignant and malignant conditions of the genital tract. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7406 Perinatology/Maternal Fetal Medicine Selective (1-12). This is a four week clerkship offered in Period 4 which will allow the student to experience the full range of maternal-fetal medicine and to familiarize the student with the diagnosis and management of pregnant patients who have obstetrical, medical or surgical complications. The student will receive experience in ultrasound, genetics and genetic counseling and the management of high-risk obstetrical patients. Students will follow patients on the inpatient antepartum service and participate in the care of high-risk obstetrical patients admitted to the hospital. This course is designed to familiarize students with the diagnosis and management of pregnant patients with obstetrical, medical and surgical complications. Students will have an opportunity to follow patients on the inpatient antepartum service and to participate in the care of high risk obstetrical patients admitted for labor and delivery. Students will see patients in the High Risk Obstetrical Clinic; Maternal-Fetal Medicine office hours and during obstetrical ultrasound sessions. Attendance at the following conferences is required: FHR tracing and labor management review, high risk obstetrics conference, grand rounds, prenatal - neonatology conference and journal club. Students are required to take call on the Labor and Delivery Unit one night per week. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7414 Obstetrics/Gynecology Selective (1-12). The fourth year clinical electives in the Department of Obstetrics and Gynecology offer the student the opportunity to enhance his/her skills in out-patient diagnosis and management. The student is expected to attend according to the schedule agreed upon with the supervisor, including call duty, rounds, etc. Students with specific learning objectives for their experience should arrange a time to meet with the supervisor to discuss them. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7452 Multidisciplinary Oncology Clinical Elective (1-12). The goal of this elective is to introduce the student
to the multidisciplinary management of patients with cancer. The program includes the evaluation and management of patients with hematologic malignancies and the disciplines of medical oncology, surgical oncology, and gynecologic oncology. The full spectrum of care also includes programs in cancer survivorship and palliative care. The experience will include outpatient clinics, in-patient rounds/consults, surgery and exposure to clinical trials and clinical research. The students will attend and present at weekly multidisciplinary tumor conferences, attend monthly cancer committees, and participate in monthly journal clubs. The opportunity to participate in clinical research will be made available to interested students. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7502 Ophthalmology Elective (1-12).** The fourth year clinical rotation in ophthalmology will provide students with a more focused and in-depth experience in the evaluation, diagnosis, and management of ophtalmic conditions. Students will spend substantial time in clinic and the operating room in general ophthalmology or their ophthalmologic subspecialty of interest. They will be able to do independent patient work-up with the use of the slit lamp and other diagnostic tests, and then will be expected to interpret and present their findings and suggested clinical management to the attending physician. They will also have the opportunity to perform research in a preferred area of interest.

**Rotation Goals:**
1. Take appropriate patient history with respect to ophthalmic conditions.
2. Perform thorough ophthalmologic evaluation including: the 8 point physical exam, proper use of slit lamp for evaluation of the anterior structures of the eye, as well as, other more advanced subspecialty specific examination techniques. Additional emphasis will be placed on the interpretation of more sophisticated subspecialty specific diagnostic modalities, such as ocular coherence tomography (OCT), fluorescein angiography, computerized visual field testing, corneal topography, ocular echography, etc.
3. Learn the diagnosis and management of the most common general ophthalmic, and/or subspecialty ophtalmologic morbidities.
4. Acquire more in depth knowledge of surgical techniques used by the different sub-specialists, also noting the most common complications and how they are managed. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7530 Pediatric Cardiovascular Surgery Elective (1-12).** Medical students will examine patients admitted to the Cardiovascular Surgery service, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients in an cardiac intensive care setting. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Cardiovascular Surgery. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7531 Pediatric Intensive Care Subinternship (1-12).** Students rotating through the Pediatric Intensive Care Subinternship at Miami Children’s Hospital will have a unique opportunity to learn about the pathophysiology, pharmacology, social aspects, and clinical skills found in a world class Pediatric Intensive Care Unit. The faculty, fellows, residents, and staff hope that the student will utilize this experience to further their knowledge of the critical care of children and to see how family centered care in all fields of medicine contribute to an improved overall medical environment. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7532 Pediatric Orthopedic Surgery Subinternship (1-12).** The section of Orthopedics will present to the subintern a comprehensive outline of the spectrum of orthopedic surgery as practiced in a community hospital. The subintern will be involved in an intensive in-patient experience and will have significantly increased responsibility, involving primary workup of new patients and writing orders. The subintern will also perform procedures such as evaluating patients, taking an orthopedic history, and performing a physical examination of the musculoskeletal system. The subintern should improve his or her ability to manage complex patient presentations, including diagnosing and treating common adult orthopedic problems. The subintern should develop advanced skills in fracture treatment and cast application. He or she should be involved in joint replacement surgery and management of postoperative adult orthopedic patients. The subintern will participate in daily care, take night call, write notes, and dictate discharge summaries. The subintern may be involved in the management of orthopedic trauma and is expected to participate with the orthopedic surgery team in the diagnosis, surgical treatment, and postoperative management of orthopedic trauma patients. The subintern will participate directly with patients in the emergency department, operating room intensive care unit, and the orthopedic unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7533 Pediatric Urology Elective (1-12).** Medical students will examine outpatients seen in urology clinics and all patients admitted to the Urology service of Miami Children’s Hospital. Students will write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Urology service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7550 Pediatric Neonatology Selective (1-12).** Medical students will examine patients admitted to the Pediatric Neonatology Unit, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients in a neonatal intensive care setting. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, and residents of the Neonatology Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7551 Inpatient Pediatrics Elective (1-12).** Taking a history and performing the physical exam remain the basic tools of the physician. Developing a differential and working diagnosis are the next essential steps. Finally, the plan for further work-up and treatment culminate the skills which are necessary. Miami Children’s Hospital has
organized a program for medical students to expand their practical knowledge of pediatrics. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7552 Advanced Pediatric Medicine (1-12). Medical students will examine patients admitted to the Inpatient Hospitalist Services, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients admitted to the hospitalist service. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Hospitalist Service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7553 Pediatric Medicine Selective (1-12). Medical students will examine patients admitted to the Inpatient Hospitalist Services, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients admitted to the hospitalist service. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Hospitalist Service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7554 Pediatric Medicine Subinternship (1-12). Medical students rotating in the Pediatric Medicine Subinternship will examine patients admitted to the Inpatient Hospitalist Services, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients admitted to the hospitalist service. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Hospitalist Service. The subinternship gives the student increased responsibility for decisions made for the total care of the patient. In general, the student would be expected to function more nearly as an intern than as a third year student. During the subinternship, the student will be exposed to all necessary competencies including interpersonal skills, professionalism, practice and systems based learning, patient care, and medical knowledge. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7555 Pediatric Hospitalist Services Elective (1-12). Medical students will examine patients admitted to the Inpatient Hospitalist Services, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients admitted to the hospitalist service. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Hospitalist Service. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7557 Pediatric Rheumatology Elective (1-12). Students, under direct supervision, will participate in the evaluation and management of patients with rheumatologic disorders. During this rotation, students will be exposed to the wide spectrum of rheumatologic disorders of infancy, childhood and adolescence, from Systemic Lupus Erythematosus and Juvenile Arthritis to the still ill-defined Vasculitis. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7560 Pediatric Intensive Care Selective (1-12), Medical students will examine patients admitted to the Pediatric Intensive Care Unit, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients in an intensive care setting. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Pediatric Intensive Care Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7563 Pediatric Nephrology Elective (1-12). Students will participate in the evaluation and management of children with renal diseases. They will do so by performing history and physical examination, evaluating the laboratory data obtained, and formulating a therapeutic plan once all the data is analyzed. A second portion of this elective will consist of the active participation at conferences in which the pathology of the patients will be discussed. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7564 Pediatric Neurology Elective (1-12). The medical student will perform histories and physical examinations on patients with neurological problems, develop diagnostic and treatment plans, and discuss them in detail with a faculty member. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7565 Pediatric Neonatology Elective (1-12). Medical students will examine patients admitted to the Pediatric Neonatology Unit, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients in an neonatal intensive care setting. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, and residents of the Neonatology Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7566 Pediatric Endocrinology Elective (1-12). The student, under direct physician supervision, will participate in clinics, inpatient, and private patient care in the area of endocrinology. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7568 Pediatric Hematology Elective (1-12). The medical student will evaluate and follow hematologic and oncology patients, including both clinic and hospitalized patients, and will attend educational conferences in-house. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7570 Pediatric Genetics Elective (1-12). The student will participate in the evaluation and management of children with metabolic/genetic disorders of those children suspected of having such disorders. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7572 Pediatric Dermatology Elective (1-12). Medical students will observe the diagnosis and treatment of dermatologic problems in the weekly Dermatology Clinic. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.
MEL 7573 Pediatric Allergy and Clinical Immunology Elective (1-12). The student, under direct supervision, will participate in clinics and private patient care in the area of allergy and immunology. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7574 Pediatric Pulmonology Elective (1-12). The medical students will develop a close relationship with the Division of Pediatric Pulmonology and the Respiratory Therapy Department. Students will be exposed to the importance and value of pulmonary function testing in the diagnosis and follow-up of acute and chronic pulmonary problems, interpretation of blood gases, and the assessment and management of patients seen in the division. Special emphasis will be placed on the understanding the student of the interpretation of blood gases in the presence of different medical problems and the pathophysiology of pulmonary diseases. Emphasis in clinical aspects of asthma, BPD, Cystic Fibrosis will be implemented. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7575 Pediatric Intensive Care Elective (1-12). Medical students will examine patients admitted to the Pediatric Intensive Care Unit, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients in an intensive care setting. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows of the Pediatric Intensive Care Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7578 Pediatric Cardiology Elective (1-12). Medical students will examine patients admitted to the hospital, make daily rounds on all patients on the cardiologist’s service, assist and observe the management of cardiac patients in an outpatient setting. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7579 Pediatric Gastroenterology Elective (1-12). Medical students and resident will perform routine histories and physical examinations on all gastroenterology patients with emphasis on clinical diagnosis and treatment. They will also participate in endoscopic procedures and will be expected to have an active role in the management of G.I. patients in both inpatient and outpatient settings. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7582 Pediatric Infectious Disease Elective (1-12). Medical students will examine patients in the outpatient infectious disease setting and all patients admitted to the Pediatric Infectious Diseases team, write daily entries into the medical record, develop plans for care, enter orders into the medical record, make daily rounds on all patients, assist and observe the management of patients. Students will participate in all academic activities, including simulation training and didactic lectures, provided to the students, residents, and fellows. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7589 Pediatric Ambulatory Services Elective (1-12). The student, under direct physician supervision, will participate in the diagnosis and treatment plan for emergency and outpatient cases. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7605 Adult Inpatient Psychiatry Elective (1-12). The course allows Period 4 medical students to refine the skills they acquired in the Period 3 Psychiatry Clerkship through further inpatient and emergency psychiatry experiences. These skills include psychiatric interviewing, diagnostic reasoning, and treatment planning. Students will participate in the initial assessment of patients presenting for admission and will follow inpatients throughout their hospital stay. The Elective is 2 weeks or 4 weeks long. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7619 Forensic Psychiatry Elective (1-12). The course exposes interested Period 4 medical students to the interactions between the psychiatric and legal systems by providing the opportunity to rotate in a forensic psychiatric hospital. Students will learn the clinical, legal and ethical issues at the interface between psychiatry and the law and will refine the skills they acquired in the Period 3 Psychiatry Clerkship through further inpatient and assessment experiences. These skills include psychiatric interviewing, diagnostic reasoning, and treatment planning. Students will participate in the initial assessment of patients presenting for admission and will follow inpatients throughout their hospital stay. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7631 Child Inpatient Psychiatry Elective (1-12). The course exposes Period 4 medical students to child and adolescent psychiatry in a hospital setting and allows them to refine the skills they acquired in the Period 3 Psychiatry Clerkship through further inpatient and emergency psychiatry experiences. These skills include psychiatric interviewing, diagnostic reasoning, and treatment planning. Students will participate in the initial assessment of patients presenting for admission and will follow inpatients throughout their hospital stay. The Elective is 2 weeks or 4 weeks long. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7633 Adult Inpatient Psychiatry Selective (1-12). The course allows Period 4 medical students to refine the skills they acquired in the Period 3 Psychiatry Clerkship through further inpatient and emergency psychiatry experiences. These skills include psychiatric interviewing, diagnostic reasoning, and treatment planning. Students will participate in the initial assessment of patients presenting for admission and will follow inpatients throughout their hospital stay. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7671 Neurology Elective (1-12). A one month elective neurology clerkship that can be tailored to the student's needs. In-patient and out-patient experiences will be available in addition to simulations and neuro-anatomy lab. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7682 Neurology Selective (1-12). A one month elective neurology clerkship that can be tailored to the student's needs. In-patient and out-patient experiences will be available in addition to simulations and neuro-anatomy lab. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7702 Pediatric Radiology Elective (1-12). This elective may be taken as a 2-week or as a 4-week elective by prior arrangement. The student will spend time in the
various reading rooms in Miami Children's Hospital as follows:
Week 1 - Plain films
Week 2 - Ultrasound
Week 3 - Fluoroscopy/procedures/nuclear medicine
Week 4 - Cross-sectional imaging (CT/MRI)
For a 2-week elective:
Week 1 Plain Films/Nuclear Medicine
Week 2 Cross-sectional imaging (CT/MRI/Ultrasound)
Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7704 Diagnostic Radiology Elective (1-12). This rotation is intended to give students an introduction to the basics of diagnostic imaging, the appropriate choice of imaging method for given clinical problems and the side-effects and risks associated with each. Students will become familiar with imaging findings in common clinical condition. The rotation will involve online modules, small group sessions and 'virtual' and real reading room sessions. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7712 Radiology Selective (1-12). This rotation is intended to give students an introduction to the basics of diagnostic imaging, the appropriate choice of imaging method for given clinical problems and the side-effects and risks associated with each. Students will become familiar with imaging findings in common clinical condition. The rotation will involve online modules, small group sessions and 'virtual' and real reading room sessions. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7740 Radiation Oncology Elective (1-12). This rotation will provide the student with supervised participation in the care of radiation oncology patients. This will include the diagnostic / clinical evaluation of the patient's disease and the development of treatment plans for patients that require radiation therapy in their cancer management. They will be shown different management options and what the most adequate timing for the procedures. The student will participate in the assessment planning and diagnostic work up. They will review basic medical physics, as well as, principals of Oncology, Radiosurgery and Brachytherapy. They will contribute personalized care of cancer management that is practiced at the Innovative Cancer Institute. They will be exposed to state of the art radiation oncology equipment. During the planning phase, they will be shown the use of CT imaging with plain and contrast-enhanced techniques for therapy planning and positioning of the patient for radiation treatment. They will be exposed to the management of the most common tumors seen in our community, including: breast, prostate, lung, GI, skin and head and neck cancer. Our practice includes a large number of benign and malignant tumors of the brain and spine. The acquired knowledge by the graduating class about the radiation oncology field will result in greater understanding of this specialty and hopefully will improve the outcome for the patient and the overall community. Early diagnosis and prevention of cancer will be greatly emphasized. Radiation oncology is a multidisciplinary specialty that requires interaction with multiple other specialties, and this will be emphasized. We will also introduce the student to the relatively new specialty of palliative care and the trend of integrative medicine in the overall care of the patient. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7750 Emergency Medicine Elective (1-12), This rotation is intended to make the student familiar with the wide range of clinical conditions, minor to major which are responsible for the patient seeking care at an Emergency Room. The student will practice skills in the recognition and management of acute life-threatening conditions and exacerbation of serious disease in a strictly supervised setting. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7756 Emergency Medicine Selective (1-12). This rotation is intended to make the student familiar with the wide range of clinical conditions, minor to major which are responsible for the patient seeking care at an Emergency Room. The student will practice skills in the recognition and management of acute life-threatening conditions and exacerbation of serious disease in a strictly supervised setting. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7760 Anesthesiology Elective (1-12). This rotation will allow the student supervised hands-on participation of patients in the preoperative evaluation, creation of anesthesia plan, intravenous line placement, induction of general anesthesia and airway management, monitoring of anesthesia, emergence and postoperative care. The student will also be involved in the placement of regional blocks. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7763 Anesthesiology Selective (1-12). This rotation will allow the student supervised hands-on participation of patients in the preoperative evaluation, creation of anesthesia plan, intravenous line placement, induction of general anesthesia and airway management, monitoring of anesthesia, emergence and postoperative care. The student will also be involved in the placement of regional blocks. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7770 ICU Subinternship (1-12). This rotation is intended to prepare students to obtain necessary diagnostic and therapeutic skills to effectively care for patients diagnosed with critical medical disorders. The subintern student will work in a team under the direct supervision of a pulmonary/critical care fellow and a senior resident in the role an intern. Students will assist in the admission, evaluation, and management of patients admitted to the Medical Intensive Care Unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7771 CCU/CICU Selective (1-12). This rotation is intended to prepare students to obtain necessary diagnostic and therapeutic skills to effectively care for patients diagnosed with critical cardiac disorders. Students will become an integral part of the CICU team consisting of cardiology attending, fellows, internal medicine residents and interns. Students will assist in the admission, evaluation, and management of patients admitted to the CICU. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7800 General Surgery Elective (1-12). The student works directly with general and vascular surgeons. During the rotation, the student is exposed to all phases of patient care, including outpatient clinic, operating room and
hospital. Emphasis will be placed on initial assessment, physical examination and preoperative evaluation. When appropriate, the student follows individual patients whose cases are particularly instructive. Supplemental reading for such cases is encouraged. While no formal projects are required, ample opportunity exists for independent projects as dictated by the student’s special interests. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7805 Plastic and Reconstructive Surgery Elective (1-12). The elective rotation in plastic surgery is a four (4) week clerkship designed to expose the student to a wide variety of clinical problems and techniques commonly encountered in the field of plastic surgery. The student will be exposed to all subspecialties in plastic surgery, including general reconstructive surgery, pediatric/craniofacial surgery, hand surgery, and aesthetic surgery. Students will rotate through several offices/hospitals during the rotation and will be expected to participate in pre-and post-operative office visits, hospital visits, and surgeries. The student will gain exposure to both in-patient and out-patient plastic surgery practices. In addition, the student will be expected to master wound closure techniques and other basic plastic surgery technical skills. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7806 Plastic and Reconstructive Surgery Selective (1-12). The selective rotation in plastic surgery is a four (4) week clerkship designed to expose the student to a wide variety of clinical problems and techniques commonly encountered in the field of plastic surgery. The student will be exposed to all subspecialties in plastic surgery, including general reconstructive surgery, pediatric/craniofacial surgery, hand surgery, and aesthetic surgery. Students will rotate through an in-patient setting during the rotation and will be expected to participate in pre-and post-operative office visits, hospital visits, and surgeries. In addition, the student will be expected to master wound closure techniques and other basic plastic surgery technical skills. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7807 Cardiothoracic Surgery Subinternship (1-12). The goal is to allow fourth year medical students with a special interest in Cardiothoracic Surgery, the opportunity to become more familiar with the pathophysiology and clinical presentation of the most common cardiothoracic diseases. It is expected that the Medical Student will be part of the Cardiothoracic Surgical team and assume the role of a subintern involved in the daily routine including the operating room, the cardiothoracic intensive care unit and floor. Some exposure to catheter based therapy in the hemodynamics room (cath lab) will also be included. The current trend is to have two separate pathways, one for cardiac and one for thoracic. However, because of the short duration on the service both pathways will be integrated. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7811 General Surgery Subinternship (1-12). This course is designed for students who desire to obtain a greater in-depth experience in general surgery or who are seriously considering surgery as a possible career choice. It serves as exploratory path for a planned career in general surgery or other surgical sub-specialties. In this role, the subintern will have more responsibilities than of a clerkship student. The student will, in general, function as a junior intern and will be given responsibility commensurate with his/her background and ability. The students will examine patients, assist in surgery, participate in post-operative care and will also be encouraged to develop their clinical and technical skills. The student will be expected to participate in all of the educational activities of the Department of Surgery during the course of his/her clerkship. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7814 General Surgery Selective (1-12). The student works directly with general and vascular surgeons. During the rotation, the student is exposed to all phases of patient care, including outpatient clinic, operating room and hospital. Emphasis will be placed on initial assessment, physical examination and preoperative evaluation. When appropriate, the student follows individual patients whose cases are particularly instructive. Supplemental reading for such cases is encouraged. While no formal projects are required, ample opportunity exists for independent projects as dictated by the student's special interests. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7817 Orthopedic Surgery Elective (1-12). The section of Orthopedics will present to the student a comprehensive outline of the spectrum of orthopedic surgery as practiced in a community hospital. The student will be involved in an intensive in-patient experience and will have significantly increased responsibility, involving primary workup of new patients and writing orders. The student will also perform procedures such as evaluating patients, taking an orthopedic history, and performing a physical examination of the musculoskeletal system. The student should improve his or her ability to manage complex patient presentations, including diagnosing and treating common adult orthopedic problems. The student should develop advanced skills in fracture treatment and cast application. He or she should be involved in joint replacement surgery and management of postoperative adult orthopedic patients. The student will participate in daily care, take night call, write notes, and dictate discharge summaries. The student may be involved in the management of orthopedic trauma and is expected to participate with the orthopedic surgery team in the diagnosis, surgical treatment, and postoperative management of orthopedic trauma patients. The student will participate directly with patients in the emergency department, operating room intensive care unit, and the orthopedic unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7818 Pediatric Surgery Elective (1-12). The goals of this rotation include:
1. Understand the unique anatomic, physiologic, metabolic issues in infants, children, and adolescents with surgical problems.
2. Gain hands-on instruction in the in-patient management of surgical patients in the NICU, PICU, and general units.
3. Develop expertise in the use of the hospital information systems and libraries.
4. Gain hands-on instruction and experience in the conduct of a pre and postoperative surgical clinic. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.
MEL 7820 Colorectal Surgery Elective (1-12). This 4-week rotation will introduce the patient to the diagnosis and management of disorders affecting the colon and rectum including conditions such as Crohn's disease, Ulcerative colitis, familial polyposis, colorectal cancer and disorders of evacuation. Students will work with a team of five staff surgeons and five clinical residents. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7822 Urology Elective (1-12). In this elective, the student will acquire knowledge of Urology and Urologic Anatomy; develop an understanding and ability of how to perform a urologic history and physical exam; interview and present patients; learn proper technique for Foley Catheterization, observe the use of a flexible cystoscope, observe transrectal ultrasound and prostate biopsy; develop an understanding of emergent urologic issues as well as common urologic issues with an emphasis on the acute scrotum, urinary tract infections, urinary stones, incontinence, benign prostate hyperplasia, erectile dysfunction, hematuria and prostate cancer/PSA testing by both didactic and practice based learning; develop an understanding of common Urologic malignancies and treatments possible; develop an understanding of kidney stones and the treatments possible; develop an understanding of a spectrum of urologic procedures/surgeries by observation and participation; develop an understanding of peri-operative urologic issues of both urologic and non-urologic patients via inpatient encounters and/or management and participate in their care; and develop an understanding of the role of a Urologist in the care of both male and female patients and when an appropriate referral should be made (emergent or routine). Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7828 Vascular Surgery Elective (1-12). The goal of the rotation is to provide students with a thorough understanding of the diseases of the peripheral vascular systems - arterial, venous, and lymphatic. Those considering a career in vascular surgery can gauge if the specialty meets their interests and skills while those planning to choose other fields can learn more than enough to know when referral to a vascular surgeon is appropriate. Students will work with our vascular surgeons in the office, hospital wards, operating room, interventional suite, and wound center to learn about the diagnosis and management of the full spectrum of vascular diseases. They will be exposed to patients with carotid artery disease, aortic and peripheral artery aneurysms, peripheral artery occlusive disease, dialysis access needs, venous thrombosis, varicose veins, and chronic wounds. They will be able to assist in open surgeries and in balloon angioplasty/stent procedures. There will also be opportunities for clinical research if desired. There will be no night or weekend call. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7831 Surgical Oncology Selective (1-12). The goal of this selective is to introduce the student to the surgeon’s role in the multidisciplinary management of patients with cancer. The program includes the evaluation and management of patients with malignant and benign solid tumors and their surgical management. The full spectrum of care includes medical oncology, radiation oncology and nuclear oncology. The experience will include outpatient clinics, in-patient rounds/consults, surgery and exposure to clinical trials and clinical research. The students will attend and present at weekly multidisciplinary tumor conferences, attend monthly cancer committees, and participate in monthly journal clubs. The opportunity to participate in clinical research will be made available to interested students. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7832 Cardiothoracic Surgery Selective (1-12). The goal is to allow fourth year medical students with a special interest in Cardiothoracic Surgery, the opportunity to become more familiar with the pathophysiology and clinical presentation of the most common cardiothoracic diseases. It is expected that the Medical Student will be part of the Cardiothoracic Surgical team involved in the daily routine including the operating room, the cardiothoracic intensive care unit and floor. Some exposure to catheter based therapy in the hemodynamics room (cath lab) will also be included. The current trend is to have two separate pathways, one for cardiac and one for thoracic. However, because of the short duration on the service both pathways will be integrated. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7833 Orthopedic Surgery Selective (1-12). The section of Orthopedics will present to the student a comprehensive outline of the spectrum of orthopedic surgery as practiced in a community hospital. The student will be involved in an intensive in-patient experience and will have significantly increased responsibility, involving primary workup of new patients and writing orders. The student will also perform procedures such as evaluating patients, taking an orthopedic history, and performing a physical examination of the musculoskeletal system. The student should improve his or her ability to manage complex patient presentations, including diagnosing and treating common adult orthopedic problems. The student should develop advanced skills in fracture treatment and cast application. He or she should be involved in joint replacement surgery and management of postoperative adult orthopedic patients. The student will participate in daily care, take night call, write notes, and dictate discharge summaries. The student may be involved in the management of orthopedic trauma and is expected to participate with the orthopedic surgery team in the diagnosis, surgical treatment, and postoperative management of orthopedic trauma patients. The student will participate directly with patients in the emergency department, operating room intensive care unit, and the orthopedic unit. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7834 Cardiothoracic Surgery Elective (1-12). The goal is to allow fourth year medical students with a special interest in Cardiothoracic Surgery, the opportunity to become more familiar with the pathophysiology and clinical presentation of the most common cardiothoracic diseases. It is expected that the Medical Student will be part of the Cardiothoracic Surgical team involved in the daily routine including the operating room, the cardiothoracic intensive care unit and floor. Some exposure to catheter based therapy in the hemodynamics room (cath lab) will also be included. The current trend is to have two separate pathways, one for cardiac and one for thoracic. However, because of the short duration on the service both pathways will be integrated. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.
MEL 7835 Colorectal Surgery Selective (1-12). This 4-week rotation will introduce the patient to the diagnosis and management of disorders affecting the colon and rectum including conditions such as Crohn's disease, Ulcerative colitis, familial polyposis, colorectal cancer and disorders of evacuation. Students will work with a team of five staff surgeons and five clinical residents. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7840 Bariatric and Minimally Invasive Surgery Elective (1-12). This 4-week rotation will give the student exposure to surgical treatments for morbid obesity and the use of minimally invasive surgery in a number of conditions affecting the GI tract, abdominal wall, endocrine glands and spine. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7841 Bariatric and Minimally Invasive Surgery Selective (1-12). This 4-week rotation will give the student exposure to surgical treatments for morbid obesity and the use of minimally invasive surgery in a number of conditions affecting the GI tract, abdominal wall, endocrine glands and spine. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7842 Neurosurgery/Neuroscience Elective (1-12). This one month elective neurosurgical clerkship will assign interested students to faculty neurosurgeons at one of our affiliated facilities. This rotation presents the student the broad-spectrum of neurosurgical conditions and procedures encountered in a tertiary hospital setting. Each student will receive a syllabus at the beginning of the rotation that covers the fundamentals of neurosurgery for undergraduate medical education. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7843 Neurosurgery/Neuroscience Selective (1-12). This one month selective neurosurgical clerkship will assign interested students to faculty neurosurgeons at one of our affiliated facilities. This rotation presents the student the broad-spectrum of neurosurgical conditions and procedures encountered in a tertiary hospital setting. Each student will receive a syllabus at the beginning of the rotation that covers the fundamentals of neurosurgery for undergraduate medical education. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7844 Otolaryngology/ENT Elective (1-12). This clinical elective exposes fourth year medical students to the surgical subspecialty of Otolaryngology-Head and Neck Surgery, also known as Ear, Nose and Throat (ENT). Medical students work directly with resident and attending physicians in the operating room, inpatient setting, and outpatient clinic caring for patients with a variety of medical and surgical diseases affecting the head and neck region. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7845 Trauma/Acute Care Surgery Subinternship (1-12). The Trauma/Acute Care Surgery subinternship is intended to provide the student with in-depth knowledge of patient care as it relates to trauma and non-trauma emergency surgical diseases. The student is expected to function at the level of a junior resident and be on the scene for first-line evaluation and management of patients in the emergency room. In addition, it is expected that the student maintains close follow-up of the patient's progress on a daily basis. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7846 Trauma Surgery Selective (1-12). The members of the division of Trauma and support staff strive to provide selective surgical students with a stimulating and unique learning experience and are committed to offering students the support necessary for them to finish this rotation with a firm understanding of a surgical selective rotation. We begin with the assumption that students participating in the surgical selective rotation, have learned normal anatomy, are familiar with normal physiology, and knows the pathology of the common diseases to be covered in this selective. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7847 Pediatric Surgery Subinternship (1-12). The subinternship, combining in-patient, emergency, and outpatient experiences, gives the student increased responsibility for decisions made for the total care of the patient. In general, the student would be expected to function more nearly as an intern than as a third year student. During the subinternship, the student will be exposed to all necessary competencies including interpersonal skills, professionalism, practice and systems based learning, patient care, and medical knowledge. The goals of this rotation include:
1. Understand the unique anatomic, physiologic, metabolic issues in infants, children, and adolescents with surgical problems.
2. Gain hands-on instruction in the in-patient management of surgical patients in the NICU, PICU, and general units.
3. Develop expertise in the use of the hospital information systems and libraries.
4. Gain hands-on instruction and experience in the conduct of a pre and postoperative surgical clinic. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7848 Vascular Surgery Selective (1-12). The goal of the rotation is to provide students with a thorough understanding of the diseases of the peripheral vascular systems - arterial, venous, and lymphatic. Those considering a career in vascular surgery can gauge if the specialty meets their interests and skills while those planning to choose other fields can learn more than enough to know when referral to a vascular surgeon is appropriate. Students will work with our vascular surgeons in the office, hospital wards, operating room, interventional suite, and wound center to learn the about the diagnosis and management of the full spectrum of vascular diseases. They will be exposed to patients with carotid artery disease, aortic and peripheral artery aneurysms, peripheral artery occlusive disease, dialysis access needs, venous thrombosis, varicose veins, and chronic wounds. They will be able to assist in open surgeries and in balloon angioplasty/stent procedures. There will also be opportunities for clinical research if desired. There will be no night or weekend call. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7849 Oral and Maxillofacial Surgery Elective (1-12). This elective is an opportunity for the medical student to expand their knowledge in anatomy and physiology of the oral cavity, maxillofacial region, the neck and their adnexal structures to the extent of being capable of recognizing abnormal findings. The student will also learn about the surgical management of oral and head and neck pathology and the correction of congenital and traumatic deformities. Acute trauma care is a major component of
this service. The student will have some responsibility for inpatient care each week and participate in rounds. Students will have the opportunity to perform minor procedures in the hospital clinic, as well as the emergency room. Operating room activity is encouraged. All activities are supervised by the chief resident and full time attendings. Management decisions are made only after being discussed with the resident and attending. The student will participate in the academic program. This will include lectures, conferences and clinical activities in the clinic, inpatient, operating room, outpatient sedation and emergency room settings. The student will advance his/her skills in history taking as well as physical and regional examination. Furthermore, the student will observe and participate in surgical procedures involving oral and maxillofacial pathology, infections, major hard and soft tissue trauma, reconstruction and dento-craniofacial deformities. The student is also able to participate in on-call activities if he/she desires. Upon completion, the student will have a better understanding of the relationship of the oral cavity, the maxillofacial region and the total patient. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7850 Plastic and Reconstructive Surgery Subinternship (1-12). The subinternship rotation in plastic surgery is a four (4) week clerkship designed to provide the student to with advanced exposure to the clinical problems and techniques commonly encountered in the field of plastic surgery. The student will be exposed to a specific area of interest within the field of plastic surgery. The goal is to prepare the student for an internship/residency in the field of plastic surgery. A student may choose to focus on pediatric plastic surgery, hand surgery, general reconstructive surgery, or aesthetic surgery. Students will rotate through a single setting during the rotation and will develop working relationships with the surgical preceptor. The student is expected to participate in pre-and post-operative office visits, hospital visits, and surgeries. In addition, the student will be expected to master further advance their basic plastic surgery technical skills. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7852 Advanced Pediatric Surgery (1-12). The Advanced Clerkship in Pediatric Surgery combines inpatient, emergency, and out-patient experiences. The student will be exposed to all necessary competencies including interpersonal skills, professionalism, practice and systems based learning, patient care, and medical knowledge.

The goals of this rotation include:
1. Understand the unique anatomic, physiologic, metabolic issues in infants, children, and adolescents with surgical problems.
2. Gain hands-on instruction in the in-patient management of surgical patients in the NICU, PICU, and general units.
3. Develop expertise in the use of the hospital information systems and libraries.
4. Gain hands-on instruction and experience in the conduct of a pre and postoperative surgical clinic.
Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7853 Breast Surgery Elective (1-12). This fourth year medical student clinical rotation focuses exclusively on the clinical management of benign and malignant breast diseases. The student will become proficient in taking a history, performing a breast examination, and differential diagnosis in breast patients. There will be direct one-on-one supervision by attending surgeon. The student will learn about the surgical management of breast cancer and the integration of other modalities in its overall management. The student will have some responsibility for inpatient care and will have the opportunity to be first assistant in the operating room. There will be weekly didactic sessions with the attending physician. We will discuss the most important aspects of breast cancer including biology, diagnostics, prevention, and treatment. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7854 Advanced General Surgery (1-12). In this Advanced Clerkship, the student works directly with general and other subspecialty surgeons. During the rotation, the student is exposed to all phases of patient care, including outpatient clinic, operating room and hospital. Emphasis will be placed on initial assessment, physical examination and preoperative evaluation. When appropriate, the student follows individual patients whose cases are particularly instructive. Supplemental reading for such cases is encouraged. While no formal projects are required, ample opportunity exists for independent projects as dictated by the student’s special interests. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7862 Anatomic and Clinical Pathology Elective (1-12). This elective will provide an introduction and overview to the practice of pathology and is aimed at the student who may be considering pathology as a career but is as of yet undecided. The student will be exposed to anatomic pathology (surgical, autopsy and cytopathology) and clinical pathology, (clinical chemistry, hematology, microbiology and transfusion medicine). Molecular pathology will also be touched upon. The student will have access to the entire laboratory but will spend the most time in sign-out sessions and clinical conferences with the attending pathologists and residents. The student will learn pathology but will also experience what a career in pathology is like in a cordial setting surrounded by enthusiastic physicians. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7865 Pathology Selective (1-12). The primary goal of the pathology rotation is to become familiar with the role of the department of pathology and laboratory medicine within the hospital and to learn to interact with the pathologists, pathology house staff (residents) and laboratory personnel. In addition, students should learn at least some basic concepts in pathology. The pathology department provides and oversees all aspects of laboratory testing (clinical pathology) and provides diagnostic information on tissue specimens (anatomic pathology). The primary activities in which students to our department will participate in include the daily sign-out of biopsies/surgical specimens, review of autopsies, and various intra and interdepartmental conferences (see schedule provided). Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

MEL 7910 Research Scholarship (1-12). As part of the Florida International University Herbert Wertheim College of Medicine (COM) curriculum, medical students are be required to complete a 9-credit course that provides a
focused, first-hand experience in research: the Research Scholarship Course (RSC). This course is expected to develop the student's competencies needed to do research as a lead investigator or as a co-lead investigator (LI and Co-LI)* During the RSC the COM will provide students with the opportunity to be exposed, supported, and guaranteed, within current resources, the completion of a research project in a role that very closely resembles the role of a primary investigator or first author researcher. The student should be a full participant and a crucial element in the generation of (or will fully understand, if an already ongoing project) the research idea (research question or hypothesis), the development of the project proposal, data collection tools, data collection activities, analysis, interpretation, and the writing of a short document summarizing the experience. The potential research projects could encompass different areas that could cover, but are not to be limited to the areas of basic sciences, community-based, and clinical and epidemiological research. Prerequisite: Enrolled in the Herbert College of Medicine.

**MEL 7955 Public Health Elective (1-12).** This elective will introduce students to the practice of Public Health for physicians. Students will be placed for a one month internship at the Miami-Dade County Health Department or comparable practice site, and assigned a mentor (MD/PhD or MD/MPH). Experiences and activities will be tailored to individual student interests within the structure of the elective. Students will be evaluated by their site preceptor. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.

**MEL 7957 Medicine and Society Elective (1-12).** The Medicine and Society elective is designed for individualized study and further pursuit of topics relevant to the Medicine and Society's mission preparing to improve health outcomes for underserved communities to cultural and social issues in the delivery of care through the educational objectives on social determinants of health and policy. Students will design an independent study experience under the tutelage of Medicine and Society or other Humanities, Health and Society faculty. Potential projects, include pursuit of a policy initiative in collaboration with Law, cultural competency project, or intensive community-based health initiative. The Medicine and Society elective will be offered in all months with maximum of 6 students per year. Prerequisite: Enrolled in the Herbert Wertheim College of Medicine.